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Population and Human Resources
Department
The World Bank
June 1990
WPS 457

Financing Health Services in Africa

An Assessment of Alternative Approaches

Germano Mwabu

African economies are performing poorly, and it is unlikely that governments will finance the health sector by raising additional tax revenues or by borrowing from international sources. What are the possibilities for user fees, community financing, and health insurance as alternatives? And should cost-recovery be an objective?

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This paper — a product of the Population, Health, and Nutrition Division, Population and Human Resources Department — is part of a larger study in PRE of African health policy. A policy paper is being written based on the study. Copies of this paper are available free from the World Bank, 1818 H Street NW, Washington DC 20433. Please contact Zarine Vania, room S6-266, extension 33664 (22 pages).

Only economic growth can significantly increase the finances available for health services in Africa.

User fees. User fees can be assessed for primary care (Bamako initiative). This may have the advantage of achieving sustainability in primary care, but discourage the poor from using health services. It is not known what the poor have to give up to have access to health services for which they must pay. For tertiary care, user fees can prevent the overuse of services.

User fees, where they exist, cover only a small fraction of expenditures for health services. Cost recovery through user fees cannot be an objective as the cost of providing health services far exceeds patients' ability to pay. The purpose of user fees must be to facilitate distribution of health services.

Community financing. Another possibility is to raise the funds for health services through collective action by the community. There needs to be a clearly perceived collective need and a community organization. However, the contributions collected are often in kind and not easily convertible into cash.

Revolving fund programs for nutrition and sanitation merit consideration.

Health insurance. Health insurance has limited use in Africa. There are few examples of health insurance plans, and they are generally provided by employers in urban areas. Insurance programs are expensive to run, provide incentives for members to overuse services, and may have the effect of lowering the quality of care.

Produced at the PRE Dissemination Center

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INTRODUCTION

1. The paper outlines a strategy for financing health services in Sub-Saharan Africa. The strategy takes into account the following facts about the African continent.

- The continent consists of highly heterogeneous economies, in terms of their stages of socioeconomic development and types of political systems, so that a uniform method of financing health services would not be appropriate for the whole continent.

- African economies, like economies of other continents, are linked to the international economy. Health care financing strategy in each country should therefore take into consideration both the external and the domestic factors that affect health budgets.

- Sub-Saharan Africa is the poorest region in the world, and the one that is currently making slowest economic progress.[1] Health care financing measures in this region should therefore be sensitive to economic conditions of households.

- Sub-Saharan Africa is characterized by referral health care systems that need to be restructured to improve their performance. Policies designed to mobilize resources for health sectors should also be aimed at improving the effectiveness of referral systems.

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[1] According to UN classification, 29 of 34 poorest countries in the world are in Sub-Saharan Africa. The 29 countries comprise over two-thirds of Independent African countries (see Kamarck, 1988).

2. The individual components of the financing strategy proposed are as follows: general tax revenues, international finance, a system of user charges, community finance, health insurance, and contributions from nongovernmental organizations, including the private sector.

3. Financial positions of public health care systems in Sub-Saharan Africa would be greatly enhanced if governments in the region were to adopt policies that would use each of the above sources of finance. Since, a strong financial base is a prerequisite for an effective health care system, such policies would considerably improve health status of the population. To accommodate the diversity of financial problems in Sub-Saharan Africa it is important that for each country different policies be pursued at various levels of society, and in different sectors of the economy. For example, frequent problems such as lack of local currency to support recurrent health care costs or to finance maintenance of primary health care facilities can, to a very large extent, be resolved at the community level while problems such as shortages of foreign exchange needed to import drugs or lack of funds required to pay for preventive health services can best be dealt with at higher levels. Thus, the health resources indicated above are not alternatives in health services financing but complements.

4. The remainder of the paper is organized as follows. Section II discusses the various types of health resources just outlined in the context of Sub-Saharan Africa. Section III summarizes the paper.

HEALTH RESOURCES

5. Funding for health sector can be classified according to whether it originates from households, firms (employers), local communities, the government, voluntary organizations or from international organizations. To emphasize the inseparability between efficiency in health service delivery and health budgets, the size of a health budget is viewed as being determined by two factors: cost saving arising from a reduction in inefficiency in health service provision, and new sources of health finance. Both of these factors strengthen financial positions of ministries of health. Inefficiency reduction or elimination, should therefore be a major concern of health care financing reforms. The elements of the financing strategy are discussed below in turn.

Tax Revenues

6. An increase in the share of the public budget allocated to the health sector would help relax financial constraints on ministries of health. However, a significant increase in the allocation of tax revenue to the health sector is unlikely to occur in the near future for two reasons. First, the ability of governments in Sub-Saharan Africa to raise substantial amounts of additional tax revenue is limited by the poor performance of African economies over the past quarter-century. Between 1965 and 1986, most African countries experienced very low rates of economic growth (Tables 1 and 2), with about one-third of the countries recording negative growth rates (see e.g. Bell and Reich (1988)). In many countries tax revenues per capita have fallen steadily over the past decade. Therefore an increase in

the share allocated to health would require a reduction not only in the share to other sectors, but also in absolute amounts spent per capita in many instances.

7. Given the unfavorable conditions of African economies, it is unlikely that ministries of health will get significant financial allocations from central governments over the next decade. The other reason why government spending on health may not rise significantly in the near future is that government resources are required to meet other needs in the economy. Policy makers might consider these needs more important than those of the health sector when allocating fiscal resources. For instance, evidence from West Africa (Vogel, 1988), indicates that over the past ten years the flow of real fiscal resources to health sectors in Ghana, Mali, Cote d'Ivoire and Senegal has declined (Tables 3-5). Even if Tables 3-5 are not a good approximation of the general trend of fiscal health resources in the rest of Sub-Saharan Africa, there is nonetheless a need to augment government resources with funds from other sources, in order to enable ministries of health in this region to extend more services to the population.

International Finance

8. The term international finance is used in the ensuing discussion to refer to loans and grants that Sub-Saharan African countries receive from international development agencies or from financial institutions. Loans enable countries to delay payments for local resources used by the health sector but nonetheless imply repayment from other sources of funds in the future. Grants increase the supply of resources permanently. In nominal terms, the net flow of foreign assistance to African countries over the past ten years has been declining, a trend that is likely to continue (see e.g. Dunlop, 1983; Bell and Reich, 1988). Moreover, foreign debt continues to erode credit-worthiness of many African countries, making it difficult for them to borrow from international capital markets (Table 5).

9. Governments of Sub-Saharan African countries should respond to the debt problem by stimulating growth in the export sectors in an effort to strengthen their economies. This is an instance where financial positions of ministries of health can be improved by using appropriate macroeconomic policies rather than by undertaking specific interventions in health sectors.

10. Even when the domestic economy is strong, the health sector is likely be allocated inadequate foreign exchange because it is generally viewed by policy-makers as a consuming, rather than as a producing sector. This view however is unwarranted because there is evidence to show that health

indicators are strongly correlated with socioeconomic development (Gertler and van der Gaag (1988), Feachem et al. (1989)).[2] Also, as demonstrated by Grossman (1972), health expenditures play an important role in the formation of health capital, a crucial input in the production process. Policy-makers therefore need to recognize the significance of health care expenditures in development, and consequently make adequate provisions for these expenditures during the budgetary process. However, in the event of a budgetary deficit, it would be very difficult to finance health projects with loans from commercial sources because health investments take a long time to yield returns. Commercial loans have short pay-back periods, and tend to be invested in sectors where investment capital can be recouped quickly. There is therefore a need for international development agencies to assist Sub-Saharan African countries to secure loans for investment in health sectors at concessionery terms. As a condition for such assistance, borrowing countries should prepare detailed health investment plans and present them to the assisting development agency before the loans are approved.

System of User Fees

11. A system of user fees has been suggested as a possible method of increasing financial resources of health sectors in Sub-Saharan Africa, and in developing countries in general (see e.g. de Ferranti, 1984; Birdsall, 1986; Ellis, 1987; World Bank, 1987; Griffin, 1988; Vogel, 1988). Experience with user fees in Sub-Saharan Africa however shows that user charges have been able to cover only about 6-8 per cent of the recurrent budget of health ministries (Table 6).[3] The reason for this is that the fees charged are very low. Also, there is very little effort at the facility level to collect the fees charged (Griffin, 1988). The problem of low level of collection effort might be resolved by permitting health facilities to retain some of the fees they collect, thus giving them an incentive to collect the fees they charge. But the problem of low levels of fees, which now average about US $ 0.22-.33 per outpatient visit in Sub-Saharan Africa (Griffin, 1988) is very difficult to resolve because of an almost intractable equity problem that must be dealt

[2] No causal relationship is being claimed between health expenditures and economic development. Furthermore, even if economic development can be shown to be a function of health status, translation of improvements in health status into increased production requires some structural changes in the economy, e.g. changes in land tenure systems or in the pricing of agricultural commodities - changes that would provide incentives for employment of additional health capital. Despite this difficulty, the fact remains that health expenditure is an important input in development process.

[3] Even if user fees can mobilize domestic resources for the health sectors, other ways of raising foreign exchange to purchase drugs and other imported inputs must be found. For a discussion of this issue, and the recurrent cost problem in health care projects, see Over (1980) and Dunlop and Over (1985).

with. Evidence from Cote d'Ivoire (Dor, Gertler and van der Gaag, 1987) shows that the poor are two-to-three times more responsive to medical care prices than the non-poor, so that if these prices are increased significantly in the public sector, a large number of poor households would move out of that sector. A great majority of households who would exit the modern health care system would probably have to rely on traditional healers for medical care. Since traditional medicine in Africa is believed to be effective in treating only a limited number of illnesses (De Jong (1989)), user fees that would recover a substantial proportion of public health expenditures would also create large inequalities in health care. Thus, given the low level of income in Sub-Saharan Africa, and the skewness in its distribution, user fees that are aimed at recovering substantial costs of medical care, are unlikely to be acceptable to governments because of their unfavorable distributional consequences.

12. Nonetheless, levels and structure of user fees that are primarily intended to rationalize patients' use of referral care, and to cross-subsidize provision of primary health services are urgently needed in countries where they do not already exist.[4] Such fees should be lower than those intended to recover costs of service delivery. They should also be restricted initially to government hospitals. If implemented according to the above proposal, user charges would encourage more rational use of referral services in that they would reduce patients' overuse of referral care. In other words, hospital fees would induce patients to seek treatment in hospitals when cheaper treatment in lower level, nonpaying facilities is unavailable or has proved to be ineffective. Unless hospital care is made substantially more expensive than primary care, patients would always want to use it (even for minor illnesses) because it is of higher quality. The consequence of treatment seeking behavior induced by underpricing of hospital services is overcrowding of hospitals by patients who can be successfully treated in lower level facilities. Overcrowding of health facilities is not conducive to efficiency and effectiveness in service delivery. Charging of modest user fees in hospitals, while maintaining free services in primary health facilities would ease patients' congestion in referral facilities. Such a fee structure is consistent with the principle of equity in health service delivery, since patients who cannot afford to pay hospital fees can obtain treatment from free facilities. Also, patients who cannot be cured by treatment provided in nonpaying facilities can be referred for free or subsidized follow-up care in hospitals. However, patients would find free facilities attractive only if the services provided there are of good quality. Efforts should therefore be made to use the fiscal resources released by user fees to improve quality of service in primary health facilities, and to finance preventive services. Even though such resources in many countries would be small proportions of total budgets of ministries of health, they are likely to be substantial in relation to expenditures on primary health services. Their impact on quality of service, especially in small health units in rural or urban areas, can therefore be significant.

[4] Such fees already exist in a number of African countries, e.g. Zaire, Ethiopia, Ghana and Swaziland.

13. At this point, it should be emphasized that the main purpose of introducing user fees in hospitals is not to recover the full cost of inpatient care. Preliminary results from studies on hospital costs in Kenya and Malawi (REACH, 1988; Mills, 1989) show that costs of providing inpatient care is too high to be recovered primarily through user charges given the per capita incomes in those countries. In Kenya for example, the cost of inpatient care in Kenyatta National Hospital in 1987 -- the main referral and teaching hospital in Kenya -- was estimated to be between US $ 67 and 270 per day. Given such cost levels (which are largely a result of the prevailing medical care technology) the role of user fees in recovering costs of inpatient services without introducing unacceptable inequalities in medical care is limited. It should be emphasized that the type of medical care technology in use strongly affects medical care costs. Development of appropriate medical care technologies should be an integral element of health care financing strategies in Sub-Saharan Africa. See for example, Bonair, Rosenfield and Tengvald (1989) for a detailed discussion of medical care technology development in developing countries.

14. A stream of literature on cost recovery has argued that public hospitals should set up amenity wards and operate them on a fee-for service basis, just as private hospitals do, while at the same time maintaining subsidized care in other wards. Under such a system, the profits earned from amenity wards would be used to improve the quality, or expand the quantity of health services, primarily in the wards where the profits are earned. In general, this type of income generating scheme in goverr nt hospitals should be discouraged. "Amenity type care" should be left t private hospitals where such hospitals exist. Government hospitals should pu' any surplus funds they may have in investments with the highest returns,[5] and use their investment income to improve hospital services that are used by the majority of patients. Such services would normally include outpatient services and bed care in general wards. In general, special or amenity wards in government hospitals should be provided for social or personal reasons, but not for better medical care that is unavailable in other wards. Patients opting for such wards should be charged market prices for the special, nonmedical treatment they receive, unless they are receiving services that might qualify for cross-subsidies, e.g. surgery.

15. The view that user fees should be restricted to the hospital sector represents one of the two extreme conceptualizations of how health services in Sub-Saharan Africa could be financed.[6] The other extreme view is that user fees should be introduced in primary health facilities (i.e. dispensaries and health centers), but hospital care should be provided free of charge at

[5] The presumption is that returns to investments are not highest in the hospital sector. This is a reasonable assumption because the primary purpose of hospitals, especially those in the public sector is not to maximize profits.

[6] The general case represents a situation where user fees are charged in the entire health care system. The fees rise as one moves up the referral system.

the time of use.[7] As already argued, the principal reason for restricting user fees to hospitals is achievement of equity in health service delivery.

16. The suggestion that patients should pay directly (through user fees) for primary health care services, while paying indirectly (through taxes) for hospital care is based on two facts. First, the total costs of running primary health facilities are quite small in comparison to recurrent costs of hospitals. It is therefore possible for local communities to support a significant portion of these costs.[8] In this case, user fees act not just as means for cost recovery, but more importantly, as devices for ensuring a sustained delivery of primary health care. The second fact is that the cost of hospital care, particularly in Sub-Saharan Africa, cannot be afforded by the majority of the population. Thus, to avoid distributional problems, hospital services should be provided free of charge at the time of use.

17. The administrative feasibility of the financing option just described depends critically on sensitivity of patients to money and time costs of medical care. If patients are very sensitive to costs of medical care, implementation of user fees would cause a large reduction in utilization of health services. Statistical demand studies in Cote d'Ivoire (Dor, Gertler and van der Gaag (1987)) and in Kenya (Mwabu (1989)) indicate that user fees that are high enough to recover a substantial portion of costs of providing health services would strongly discourage low income patients from seeking treatment. The Cote d'Ivoire study showed that a one percent increase in travel time reduced visits to clinics (primary health care facilities) by about 0.29 to 1.49 percent for low income groups. This sensitivity increased with travel time. That is, patients with longer travel time, reduced visits to clinics proportionately more than patients with shorter travel time following a uniform proportionate rise in travel time. It is highly likely that patients' sensitivity to money prices in Cote d'Ivoire would be at least as large as that for time prices. The Kenyan study showed that both time and money prices are significant deterrents to utilization of primary health services, with money prices being more important than time prices.

18. The only major health care demand study so far (but outside the African region), that can be used to support the policy of charging user fees

[7] This approach to cost recovery, has recently been advocated by UNICEF, and is commonly referred to as the Bamako Initiative.

[8] However, unit costs for outpatient treatments at primary health facilities are higher than unit costs for outpatient services in hospitals due to economies of scale and scope (see e.g. Heller (1975) and Anderson (1980)). Thus, ruling out transportation costs, user fees for outpatient services in government hospitals would be lower than user fees for the same services at government clinics. Economies of scale and scope provide a strong justification for charging hospital services. However, recent empirical evidence from Africa has generated controversy as to whether scope and scale economies exist in the hospital sector (see Bitran and Dunlop (1989) and Wouters (1988)).

for primary health services (and of course for tertiary care) is the research done by Akin et al. (1986) in the Bicol Region of the Philippines. The Philippines study found that patients are highly insensitive to medical care prices. User fees would therefore affect utilization of medical services very little. The results reported by Jimenez (1989) showing very low price sensitivities to changes in medical care prices in Ethiopia (.05 to .50) and Sudan (.37) lend support to the policy of charging fees for primary health services in Sub-Saharan Africa. A study of Zairean health zones by Bitran (1988) would also seem to support the policy of charging fees at the peripheral health facilities. The study showed that the Zairean health zones were able to finance a significant portion of their recurrent costs with revenue from user fees. No attempt was made to determine the effect of fees on utilization of health services. Demand studies in Swaziland (Yoder, 1989) and in Ghana (Waddington and Enyimayew, 1989) show that after imposition of user fees in government health facilities, visits to peripheral facilities declined drastically. But visits to urban and mission facilities remained the same or actually increased following introduction of user fees.

19. Leaving aside the empirical issue of whether or not the magnitudes of patients' responsiveness to medical care prices reported in the literature are correct, it is worth pointing out that patients' insensitivity to costs of medical care is not sufficient to justify introduction of fees in the now free government clinics. This is because when fees are introduced, patients might have to make unwarranted sacrifices (e.g. selling land, incurring large debts) in order to meet costs of medical care. That is, if fees are introduced for basic health services, poor households might have to forego other basic needs in order to pay for medical services. Studies on effects of cost sharing schemes on health in the United States (Keeler E. et al. (1987)) suggest that those who are sick will often sacrifice other consumption (basic needs) to pay moderate amounts for medical treatment. Such sacrifices are likely to be quite large in low income countries.

20. Patients' insensitivity to costs of medical care implies that they are willing to trade off some of their basic needs for medical care.[9] Such a tradeoff worsens social welfare because from the perspective of society, one basic need should not be satisfied at the expense of another. In brief, there are two reasons why introduction of user fees in primary health facilities would be inappropriate in many Sub-Saharan African countries. First, user fees (unless extremely low and therefore unsuitable for cost recovery) would exclude a significant number of poor households from basic health services. Second, even if user fees were to leave utilization of basic health services unaffected, it is highly likely that they would force poor households to make sacrifices that would worsen their welfare.

21. The above discussion needs to be re-emphasized because of its policy significance:

[9] The presumption here is that poor people must trade off a basic need (not a luxury) in order to maintain their consumption levels. This because at low levels of consumption, people can hardly afford to buy luxuries.

- The principal purpose of user fees in Sub-Saharan Africa should not be to recover costs of medical care, but to facilitate redistribution of resources from the hospital sector to primary health care facilities, and to reduce patients' overuse or wastage of referral services. User fees for cost recovery would create serious inequities in health service delivery in Sub-Saharan Africa.

- In a low income region, patients' insensitivity to costs of primary health care suggests that user fees might induce patients to sacrifice other basic necessities to obtain health care, whereas sensitivity implies that user fees might influence patients to forego health care in order to satisfy other basic needs. In the event of either of the two situations obtaining, patients would act in ways that are consistent with their best interests -- given their socioeconomic circumstances and medical knowledge -- but their sacrifices would not be desirable from the perspective of society.

- The fact that patients can make the two types of sacrifices described above suggests that there should be no surprise if it is found that own price elasticities of demand for medical care are different across countries, even across countries at the same level of socioeconomic development. There is no reason why price elasticities of medical care demand should be uniformly high or low across countries. Whether own price elasticities of medical care demand are high or low, does not change the observation that charging for primary health care services in a poor region is potentially welfare reducing. In a low income area, the concern about imposing user fees on primary health care services involves more than the fact that a section of the population will be unable to afford the fees. There is also the question as to whether, in a situation where incomes remain the same as fees are imposed, the section of the population that can afford the fees would consume adequate medical care.

Community Finance

22. Community finance, in the context of health care, consists of voluntary contributions of monetary and nonmonetary resources by individuals and community groups to pay for the cost of providing health and related services. The concept of community financing broadly covers the following types of contributions (see especially Abel-Smith and Dua (1987)).

- Paying in full or at preferential rates, for health services organized through community effort. This includes payment on a fee-for service basis, for self-help community services or for drugs supplied by cooperative-run pharmacies. (The distinguishing characteristic of community financing is that it has the approval of the community, i.e. it has not been established by market forces or by individual negotiations).

- Paying for health services through socially organized voluntary community schemes, e.g. prepayment for inpatient services through agricultural cooperatives.

- Giving gifts for purpose of financing health services. The gifts could be in cash or kind or in form of labor contributions, e.g. use of voluntary labor to construct health facilities, water supply systems or latrines.

- Paying for establishment of a common fund from which grants or loans are given to members to finance health related activities. The appropriateness of community financing for health sectors in Sub-Saharan Africa, or in other areas of the developing world rests on the following arguments.

- Households spend substantial amounts of money purchasing both modern and traditional health services from private markets. Redirection of this expenditure towards services that have greater impact on health (e.g. preventive services) would benefit the households without causing them an additional financial burden.

- Community financing can mobilize hitherto untapped resources for the health sector. Such resources might include idle land, labor or financial resources. Mobilization of these resources would make it possible to increase availability of health services without sacrificing other goods and services.

- Community financing can complement formal sources of health finance, such as tax revenues or social security schemes, by mobilizing contributions from the self-employed, particularly in rural areas.

23. In order for community financing schemes to take root in any community, at least two conditions must prevail. First, there must be a common need, the fulfillment of which the community perceives, or can be induced to perceive, as requiring collective action. For example, a need for a public facility, such as a health center. Second, there must exist means of organizing community members in a way that enables them to undertake collective action. Such means would normally include one or more of the following: agricultural cooperatives, councils of village elders, village health committees, self-help groups, district health management teams, nongovernmental organizations, among others.

24. In light of the above, the first step that is required in initiating community-financed health services is the identification of health projects which have strong public good characteristics. That is, projects which once established, benefit the community as a whole. The process of identifying socially beneficial projects should be a joint effort between the community (e.g. village health committees) and government officials (e.g. district health management teams). The next step is to design mechanisms for mobilizing community resources to support health projects that have been agreed upon both by the community and the government.

25. In the case of Sub-Saharan Africa, the design of mechanisms to mobilize community resources is greatly complicated by the fact that the major components of the resources to be mobilized are not in form of cash or easily transformable into cash (Carrin, 1987). The resources to be

mobilized typically consist of livestock, labor time and agricultural products. The illiquidity or the nonmonetary character of these resources, dictates that they be mobilized outside the monetary economy, i.e. without using the price mechanism. In much of Sub-Saharan Africa, agricultural cooperatives are the most promising non-price mechanisms for mobilizing agricultural produce to finance costs of medical care. This mode of health care financing requires establishment of a prepayment scheme whereby members of an agricultural cooperative prepay for health services (for example every season), by delivering a certain quantity of their produce to the cooperative, or by accepting a certain deduction on the value of their crop sales. The cooperative then uses the funds of the prepayment scheme to pay for health services used by its members. Mobilization of community resources through agricultural cooperatives is feasible only in areas where cash crops are grown. Except in isolated cases noted in Abel-Smith and Dua (1987), agricultural cooperatives have not been used much in Sub-Saharan Africa to mobilize community resources for health sectors.

26. Non-agricultural resources such as labor time and farm and household assets, are mainly suitable for financing capital costs of health services, e.g. construction of health facilities or water projects. The non-price mechanisms that are used to mobilize these resources usually include village level organizations such as the self-help groups, village health committees and the local level government administrative machinery. In East and West Africa, self-help movements, in collaboration with local government agencies have mobilized substantial amounts of resources to finance construction of health, water, and sanitation facilities (see e.g. Mbithi and Rasmusson (1977) and Abel-Smith and Dua (1987)).

27. Attention will now be turned to mobilization of financial resources of communities. The mechanism typically used to mobilize these resources is the "revolving fund." The revolving fund, in the context of health care, is a health resource (in cash or kind) that the community initially obtains from an outside source, e.g. a government agency. The resource is then used to finance the cost of health services and related activities without allowing it to be depleted.

28. The community might initially acquire the resource at subsidized or at market prices. The resource is said to "revolve" in the sense that it is used many times over to provide the same type of health services in the same or in different communities. The revolving of the resource is ensured by contributions made by community members to cover the cost of the services financed by the fund. Thus, the revolving fund mobilizes the community resources for health care by making basic health services available at a cost that the community can afford to pay. Moreover, the fact that the fund is owned and managed by the community gives the community an incentive to protect it from depletion. In other words, the community is willing to use its uncommitted resources (resources not devoted to the provision of basic needs) to sustain the fund, and therefore, the services it provides.

29. Five types of revolving funds have so far been used to mobilize financial resources for health sectors. The funds, all of which have performed quite well in Asia, but not as well in Africa are: drug funds, nutrition funds, sanitation funds, health card funds, and multipurpose funds

(Abel-Smith and Dua (1987); Carrin (1987) and Cross et al. (1986). The names of the funds indicate the types of health service or activities they support.

30. In the case of Sub-Saharan Africa, drug funds are promising mechanisms for mobilizing resources for community-based health care programs. Drug shortages are very common in rural communities in Sub-Saharan Africa. Thus, rural communities in this region would likely agree to set up community pharmacies on a revolving fund basis. However, given low per capita incomes in rural Sub-Saharan Africa, unless drugs in community pharmacies are subsidized, the majority of the population would not afford to buy them. The problem with drug subsidization is that it also creates a black market for drugs. It provides strong incentives for people to purchase subsidized drugs from community pharmacies at low prices and sell them at market prices in private pharmacies. Thus, the black market created by subsidies diverts drugs away from the population to which they were targeted. However, in remote villages, where transportation facilities are virtually absent, the separation of community pharmacies from the private ones is likely to be so complete that drug subsidies would not create a black market for drugs. Subsidization of drugs in such areas has a high likelihood of achieving the intended objective of resource mobilization while also serving well the social goal of equity. Monitoring of drug funds in scattered villages could however be a problem. Also, experience with revolving drug funds in Africa shows that they are beset with serious management problems, and tend to be depleted within a short time.

31. Revolving funds for nutrition and sanitation projects also merit consideration. These funds would require establishment of loan schemes at the community level from which community groups and individuals can borrow money to finance the cost of constructing a water facility e.g. a well or to finance a nutrition project such as a vegetable garden. As in the case of drugs, in order for such loans to be affordable by the community, they may have to be extended at subsidized rates of interest. To maximize chances of loans being used for purposes for which they are requested, they should, as much as possible, be provided in kind.

32. In brief, community financing has desirable aspects for rural Sub-Saharan Africa, particularly the prospect that it can motivate communities to undertake investments that improve their incomes as well as their nutrition and health conditions. The major challenge for health planners is to assist communities to identify and implement such projects and manage them effectively. But it should be re-emphasized that except in Thailand, revolving drug funds, especially in Africa (Table 5) have run into serious problems of mismanagement, depletion and poor repayment rates. Ways of avoiding these problems should receive attention in the design of revolving drug programs.

Health Insurance

33. Between 5 and 15 percent of the population of developing countries, excluding the People's Republic of China, participates in some form of health coverage for health care (Akin, 1987). The populations with formal risk coverage receive it through the medical component of social insurance

plans or through various types of employer plans. Such plans are largely urban-based, and cover only a small proportion of the population. In rural areas, risk-sharing arrangements for health care are limited to community-sponsored plans and to cooperative-based programs.

34. Fragmentary data that are available show that the health insurance categories of the type indicated above also benefit only a small percentage of the population in Sub-Saharan Africa. In Kenya for example, the Hospital Insurance Fund, a mandatory health insurance scheme for people earning not less than Ksh.1000 (approximately US$50), covers about 10 per cent of the population. The bulk of this population is in urban areas. In Ethiopia, medical insurance coverage is provided through employer medical schemes in the modern sector of the economy, and is also therefore restricted to the urban sector.[10] In 1986, only about 6000 people benefited from these schemes. The estimated cost per beneficiary in that year was US$ 111 while the average claim was approximately US $43.50. In rural areas of Ethiopia, producer cooperatives meet recurrent and some capital costs of clinics, including the cost of maintaining village health workers who are responsible for extending basic health services to communities.

35. In Gabon, Central Africa, social security fund began covering health care expenses in 1971, primarily for treatments abroad. Patients contribute to costs of treatment according to their incomes. Contributions vary from 1 to 35 per cent, depending on patients' ability to pay. The social security fund owns hospitals at which treatment is provided free of charge to beneficiaries, the civil servants and the indigents. The social security fund covers approximately 100,000 employees, mainly in the urban sector. In 1971, Gabon introduced hospital insurance schemes to cover treatment expenses in approved health units. Co-payments range from 0 to 25 per cent of medical costs, depending on patients' income. In all the above countries, private health insurance schemes are limited, and their administrative costs are very high.

36. At this point two major advantages of health insurance as a method of financing health services should be noted. First, by providing a mechanism for gradual accumulation of funds to pay for medical expenses, insurance schemes enable households to reduce, if not to remove, financial or health catastrophe that could result from unexpected illness or injury. This advantage should make health insurance particularly attractive in a low income region, such as the Sub-Saharan Africa, where generally, an individual household would not be in a position to meet the cost of treating a major illness. Thus, one would expect households in such a region to be willing to participate in health insurance schemes if insurance premiums were appropriately set. Second, since health insurance can be designed in a manner that spreads the cost of treating illness evenly over the sick and healthy, and which also makes the non-poor bear a greater share of this cost, when so designed, it is a fair method of distributing the burden of caring for the sick in society. Because of beneficial effects of insurance,

[10] See Dunlop and D. Donaldson (1986) for detailed analysis of financial situation of the Ethiopian health care system.

there is a need to develop health insurance schemes in areas of Sub-Saharan Africa, where these schemes do not exist. However, the following limitations of insurance schemes should be noted.

- Because of the administrative costs that it involves (over and above the cost of medical treatment), health insurance makes medical care more costly, not cheaper. Thus, insurance should be restricted to the financing of medical care for catastrophic illnesses. In Sub-Saharan Africa, as in other regions, compulsory health insurance should generally be used to finance the cost of certain categories of inpatient care.[11]

- Since under health insurance, medical services are free of charge at the point of service, there is a tendency for patients to overuse them. However, in rural Sub-Saharan Africa, this problem is likely to be insignificant because of time and travel costs that are involved in the utilization of health services.

- In the case of prepayment schemes, the quality of care is likely to be low because providers' incomes remain the same irrespective of the quality of service offered. However, by restricting providers to a fixed income, prepayment schemes, particularly in the private sector, tend to keep down costs of medical services. But this advantage is severely limited by providers' power to create demand for their own services. The issue of provider-induced demand is taken up in the next section.

Contributions from the Private Sector and Non-Governmental Organizations

37. The private sector and nongovernmental organizations (NGO) have a crucial role to play in financing health services (i.e. in providing resources required to expand health services coverage) in Sub-Saharan Africa.[12] The proper role of the private sector and NGO in health care financing in Sub-Saharan Africa should be to complement the efforts being made by Governments of the region to improve health status of the population. In other words, the primary responsibility of health services provision should rest with public authorities. First of all, this is because in Sub-Saharan

[11] The problem with this restriction is that it gives people incentives to use inpatient services for health problems that can be handled on an outpatient basis. This is a very difficult problem to resolve because providers might also have a financial interest in admitting patients for inpatients care even when in fact such care is not required on medical grounds. For a discussion of experiences with compulsory health insurance mechanisms, see, Roemer (1987).

[12] Private sector denotes private clinics, hospitals and other for-profit health facilities. Nongovernmental organizations include not-for profit organizations that operate in the health sector, e.g. church supported and philanthropic organizations. Also included under the private sector are business enterprises that provide health services directly to their employees or provide them with health insurance coverage.

Africa, as in other parts of the world, health care is generally viewed as a merit good, i.e. a social good that should be available to all, regardless of ability to pay. The private sector allocates goods and services through the market system, i.e. on the basis of ability to pay, a criterion that is inappropriate for allocating a social good. Secondly, private medical care consumption is socially beneficial -- as in the case of vaccinations and treatments for infectious diseases. If individuals are left alone to purchase health services from private providers, they may not consume socially desirable services, or might not consume them in sufficient quantities.

38. Although health services should be produced predominantly by the public sector, the role of the private sector in augmenting health resources cannot be overlooked (see e.g. Green (1987), Williams (1988) and Mwabu (1986)). In Sub-Saharan Africa, nongovernment sector is an important source of health care resources. The nongovernment sector has committed a large amount of its resources to the provision of basic and tertiary health services -- services which would not be available to the population without this sector. In countries such as Ghana, Zambia, Sudan, Mali and Rwanda, the share of private sector in total health expenditure varies from 35 to 75 per cent (de Ferranti (1984)). In Kenya, 35 per cent of health services are provided by nongovernmental organizations (Bratton, 1989), and approximately 44 per cent of the Kenyan health expenditure in 1984, was accounted for by private spending (Bloom et al. (1986)).

39. If properly used, private health sector (the for-profit health system) can help alleviate budgetary constraints that Governments in Sub-Saharan Africa are currently facing in their efforts to extend basic health services to the population. Andreano and Helminiak (1987) have suggested three ways of using the private sector to increase health resources of a country. Specifically, Governments in Sub-Saharan Africa, and elsewhere, can use the private sector to enhance their health budgets by:

- Substituting private resources for public resources in the delivery of certain health services. In this case patients get the same services as before the substitution, except that they pay for them directly through user fees. The substitution enables Governments to reallocate public resources to areas of greater priority e.g. to preventive health care, and public health.

- Permitting the private sector to grow, thereby increasing the total resources in the country devoted to medical care.

- Using the competitive influence of the private sector to increase the efficiency of the public sector, i.e. allowing private health care sector to compete with the public sector thereby creating an environment in which the public sector has to provide quality services in order to retain patients. This would happen only if public facilities are required to finance some of their operations with revenue from user charges.

40. Although the private, for-profit health sector can be used to enhance health resources of a country, its disadvantages should be carefully noted. There exists much consumer ignorance in health services markets. That is,

patients are not able to judge with certainty the quality of care that they get. Private providers could take advantage of this informational problem and provide sub-standard care to patients. Moreover, and because of the problem just noted, patients often tend to choose providers on basis of loyalty -- based on successful experience in treatment -- rather than on provider competence (see for example McGuire (1982)). Since, unqualified providers can also give successful treatment, the consequence of the provider choice criterion just noted, is the existence of inefficient or unqualified providers in health services markets. Because patients are imperfectly informed about medical goods and services, there is incentive for providers to invest in patients' loyalty -- doing what pleases patients, e.g. giving them unnecessary injections and ordering unnecessary diagnostic tests, rather than investing in things that improve service quality. Providers who invest in patients' loyalty recoup their investment by increasing their fees, because loyal patients would not switch to other providers when fees of the trusted provider rise. In fact, consumer ignorance would generally motivate all profit-seeking providers to invest in patients' loyalty, and subsequently to increase medical care costs.

41. Another disadvantage of using the private sector (which is also rooted in patients' inability to determine the quantity or quality of medical care they need) is that, providers have the power to induce patients to consume more medical care than is actually necessary, thereby increasing the cost of treating illnesses (see e.g. Reinhardt (1989)). Given that providers know incomparably much more about medical services than patients, what needs to be determined for Sub-Saharan Africa, or any other region, is not whether providers have the power to influence medical care demand, but the extent to which they exercise that power On a priori grounds, one would expect profit-seeking providers to have irresistible temptations to induce patients to use unnecessary medical care.

42. Profit motive is the force that makes private providers devote resources to the provision of medical care. Unfortunately, given information imperfections in health services markets, profit motive is also the force that might motivate private providers to escalate prices of medical services, even when their costs and quality are not rising.

43. The disadvantages that have just been highlighted should be interpreted as costs of using nongovernment sectors to expand the resource base of the overall health care system, rather than as reasons why the sectors should not be used. Since these costs are higher, the stronger the profit motive, policy-makers can reduce them by encouraging delivery of health services through NGOs and other nonprofit making organizations. Widespread use of nongovernment sectors by public authorities to enhance health resources in Sub-Saharan Africa depends on whether nonprofit organizations through which health services can be delivered exist, or can be

developed.[13] It also depends on the extent to which government machinery can be used to solve the difficult problem of information asymmetry in private medical care markets. Research is needed to determine types of private, nonprofit institutions that Governments in Sub-Saharan Africa can use to deliver some of the services that are currently being provided through public health care systems. Research is also required to determine ways of cost containment, and quality maintenance in the private sector, without stifling its innovations in medical care delivery.

44. Nongovernmental organizations and business enterprises, including parastatal organizations, are major providers of health services in a number of developing countries. The nongovernmental organizations such as the church supported health facilities operate mainly in the rural areas and in urban slums. The government can collaborate with these organizations to extend health services to the disadvantaged populations. The government can also motivate business enterprises, e.g. through tax incentives, to provide health services to their employees or to provider them with insurance cover. Business enterprises (both private and parastal) appear to be a potential source of medical care in many developing countries, especially in the urban areas. In Kenya for example, a number of private companies and parastatal organizations have health facilities for their employees (REACH, 1988).

SUMMARY

45. Governments in Sub-Saharan Africa are currently facing serious budgetary constraints in their efforts to make basic health services available to every one. The budgetary constraints are a result of a combination of poor performance of African economies, and of very high rates of population growth over the last quarter-century. Because of these events, i.e. very low rates of economic growth (which render it impossible to generate substantial health resources through taxation), and the rapid increase in population (which continues to lower the per capita availability of health resources), African Governments cannot satisfy basic health needs of the population by using existing health resources alone. Additional resources must be found, and the existing ones must be used more efficiently and equitably.

46. This paper has outlined complementary measures that can be undertaken to achieve the above purpose in Sub-Saharan Africa. The measures suggested in the paper should be seen as elements of a general health care financing strategy that can be modified to suit conditions of specific countries, not only in Sub-Saharan Africa, but also in other countries at the same level of socioeconomic development. The suggested measures, which involve individuals and families, communities, the public sector, the nongovernment sector, and the international community are as follows: implementation or restructuring of user fees in government

[13] Licensing can also be used to encourage private providers to deliver certain services. For example, a license can be issued to a private doctor for operation in a region if and only if he agrees to provide evidence every year of preventive services delivered.

hospitals; development of community-financed health care programs, particularly those that involve joint investments in health, sanitation and nutrition; encouraging the growth of health insurance schemes, especially prepayment schemes for urban employees; increasing the amount of fiscal resources (including foreign exchange) allocated to the health sector; encouraging business enterprises to provider health services or health insurance coverage to their employees; encouraging -- through fiscal incentives, dissemination of health information, setting of ethical standards, among others -- the growth of a nongovernment health sector; negotiating with international development agencies for more favorable loan conditions, especially loans for financing investments in health sectors.

47. With regard to the last measure, long gestation periods of investments in health sectors should be recognized both by borrowers and lenders if these sectors are to compete with other sectors for international finance. Although neglected in the text, use of macroeconomic instruments, e.g. exchange rates, tariff reductions and subsidies, to stimulate economic growth is an important overall aspect of the health care financing strategy presented in the paper.

48. The main conclusions of the paper may be summarized as follows:

- Own price elasticities of demand for medical care are not very informative about welfare effects of user fees, especially in low income areas. They should be used cautiously as criteria for deciding whether or not user fees should be charged for primary health services in rural Sub-Saharan Africa. Although a low price elasticity of demand for medical care suggests that user fees would affect medical care consumption very little, there is also the possibility that in a poor region, basic medical care consumption would be maintained at the expense of other basic goods and services. Thus, even when user fees do not reduce medical care consumption, their effect on welfare is uncertain. The welfare effect of user fees is also uncertain when price elasticity of demand for medical care is high. In that case, user fees would reduce medical care consumption (other things being equal), but their cross effect might be to encourage consumption of other goods and services that increase health status. However, when the cross effect is absent, user fees worsen welfare because they hurt health status by reducing consumption of basic medical care.

- The various types of health resources discussed in the paper reinforce one another in the financing of health services. The policy question therefore is not which of the resources is appropriate for financing health services, but to what extent should a particular resource be used given specific circumstances of countries.

- Macroeconomic policies that are intended to improve performance of economies of Sub-Saharan Africa are important overall aspects of a sound health care financing strategy. Success of specific health care financing measures such as the user charges depends on the state of domestic economy. Thus, policies to ensure proper management of the economy should accompany specific measures adopted to mobilize resources for the health sector.

- Lending for health sector should be conditional upon existence of detailed plans for health investments. When financing the plans, priority should be given to projects that combine aspects of health, nutrition and sanitation and that have support from local communities.

- Business enterprises can play a significant role in extending health services to their employees. Since governments are in touch with business enterprises through national taxation systems, they can use fiscal incentives to motivate these enterprises to provide health services or health insurance coverage to their employees, and possibly, to the population that is within the vicinity of the enterprises.

- The principal role of user fees in a low income area is not to recover costs of health service delivery, but to rationalize utilization of health services, especially in health care systems characterized by referral facilities.

- In general, user fees in public health systems in Sub-Saharan Africa should initially be confined to government hospitals. The prevailing economic conditions in Sub-Saharan Africa are such that charging user fees in primary health facilities would cause excessive inequalities in consumption of basic commodities, including non-medical necessities. In countries where user fees already exist in primary health facilities, the fees should be continued, but their welfare impacts should be carefully monitored.

- Recurrent costs are paid for by users of health services, i.e. the households. These users remain the same as the number of participants (e.g., nongovernmental organizations, international community and business enterprises) in the health sector increases. Thus, the health care strategy outlined in the paper expands the sources for development capital, but does very little to strengthen the source for recurrent budget. It is only economic growth that would significantly enhance this source.

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